lower surface. Many sun leaves of *Rubus allegheniensis* developed sunburn spots in the center of each leaflet. Ripe fruits of *Vaccinium pennsylvanicum* partially dried on the plant. Leaves of *Diervilla lonicera* growing in the full sunshine developed sunburn to a marked extent. In fact, only a few plants escaped and so thoroughly was the color developed that patches of *Diervilla* on hillsides became visible at a long distance.

All of these effects may be referred to the unusually high transpiration, caused by high temperatures, wind, and low humidity, and furthered by the low water content of the sandy soil, on which no rain had fallen in ten days.

To obtain some idea of the reduction in leaf temperature caused by transpiration, the crude experiment of wrapping a leaf around the bulb of a thermometer was used. A single thickness of the leaf, with the lower surface exposed, was held around the bulb with a pair of forceps, and the temperature noted after 30 seconds exposure. Leaves of *Acer rubrum* produced no depression of temperature at all, and also showed greater evidence of immediate injury than any other plants on which the experiment was tried. *Populus tremuloides* caused a depression of one to two degrees, while *Populus grandidentata*, known to transpire at a more rapid rate, produced two to four degrees depression. *Gaultheria procumbens*, surrounded by an air temperature as high as 112° when the experiment was tried, produced an average depression of over four degrees.

THE PECK TESTIMONIAL EXHIBIT OF MUSHROOM MODELS

By Homer D. House

It is peculiarly fitting at this time to describe rather briefly the exhibit of mushroom models, recently installed in the State Museum at Albany, N. Y., as a memorial to the life and services of the late Charles Horton Peck, state botanist of New York from 1867 to 1915, a period of forty-eight years, all except the last two years having been spent in active service.

The final installation of these remarkable mushroom models was completed only a few days prior to his death, which occurred on July 10, 1917. The models, fifty-seven in number and representing fifty-five species of edible and poisonous mushrooms, are the work of Mr. Henri Marchand, an artist and sculptor of rare ability. The models are made of wax from casts in the field and reproduce with perfect fidelity to nature, the form, coloring and habitat of each species.

Space need not be taken to enumerate the entire list of species represented by the models, but the variety of form and color may be suggested by the following species, which are represented in the collection.

Poisonous

Amanita phalloides
" *muscaria*
Clitocybe illudens
Russula emetica
Inocybe asterospora

Edible and Harmless

Amanita caesarea
Tricholoma sejunctum
" *personatum*
Russula cyanoxantha
Lepiota procera
" *naucina*
Agaricus campester
" *arvensis*
Coprinus comatus
Morchella deliciosa
Gyromitra esculenta
Russula virescens
Strobilomyces strobilaceus
Pleurotus ostreatus
Fistulina hepatica
Armillaria mellea
Boletus cyanescens
Polyporus sulphureus

The services of Doctor Peck in the field of mycology is surpassed by no other American student of fungi. His work, although not confined to the fleshy fungi, is best known by the hundreds of species which he has described in the fleshy and woody groups of fungi (Agaricaceae, Boletaceae, Polyporaceae, Hydnaceae, and Clavariaceae).

Without the advantages of European travel and study and frequently working without access to the older European litera-

ture upon fungi, his work stands out with conspicuous individuality. That he has apparently described, in some cases, species already described by older mycologists of Europe is no reflection upon his remarkable ability in the discernment of specific and generic characters of our native species.

His work will stand for all time as the foundation upon which later students of fungi may build with safety a more elaborate morphological and systematic revision of the fleshy and woody groups of fungi.

Those friends, admirers and fellow botanists who have contributed toward bringing into existence this testimonial exhibit of mushroom models may feel that there is no more suitable memorial possible. There are few pages of modern literature dealing with the fleshy and woody fungi that do not reflect in some degree the individuality of Doctor Peck's work, and looking at these models in the State Museum, with their exquisite variety of form and color, one may imagine with what pleasure and appreciation they would be viewed by him whom they memorialize.

THE WEIGHT OF SEEDS AS RELATED TO THEIR NUMBER AND POSITION

By J. Arthur Harris

Professor Halsted's interesting paper under the above title in the June, 1917, number of *Torreya* is well worthy of the consideration of those who, as he suggests, have the opportunity of investigating the internal factors influencing seed number and seed weight. Our knowledge of the physiology of seed production is very limited indeed. Much of the work which has been done has been based upon such small series of material that the conclusions are of little real value.

The question of the relationship between number of ovules formed, number of seeds developing, and position of seed in the pod in the garden bean, *Phaseolus vulgaris*, has received very detailed consideration.